February 25, 2002

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
- Fisheries Division
- Endangered Species Coordinator
- Nongame Coordinator
- Billings Office

Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Sweet Grass County Conservation District, P.O. Box 749, Big Timber, MT 59011
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Aquatic Design and Construction, Inc., P.O. Box 582, Livingston, MT 59047
Mr. John Heminway, Bar 20, West Boulder Road, McCleod, MT 59052

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to restore 2,112 feet of stream channel on Big Timber Creek by reconstructing the proper dimension, pattern and profile of the channel and by reconnecting the active channel with the floodplain. This proposed project is located on property owned by John Heminway approximately 10 miles north of the town of Big Timber in Sweet Grass County.

Please submit any comments that you have by 5 P.M., March 26, 2002 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@state.mt.us

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Big Timber Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to restore the dimension, pattern and profile of 2,112 feet of Big Timber Creek. This reach of stream was straightened and diked in the mid to late 1990's by a previous landowner in an apparent attempt to lessen property impacts to flooding. This reach of Big Timber Creek supports resident populations of brook trout, brown trout, mountain whitefish and Yellowstone cutthroat trout. The project site is located on property owned by John Heminway approximately 10 miles north of the town of Big Timber in Sweet Grass County (Attachment 1).

I. Location of Project: This project will be conducted on Big Timber Creek located approximately 10 miles north of the town of Big Timber within Township 3 North, Range 13 East, Section 36 in Sweet Grass County.

II. Need for the Project: One goal within Montana Department of Fish, Wildlife and Parks six-year operations plan for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help meet this goal.

This reach of Big Timber Creek has been degraded as a result of work conducted in the active channel by a former landowner. This past work created a straight and over-widened channel with gravel dikes paralleling the stream banks. Currently, this channel is braided, somewhat unstable, lacks habitat diversity and supports a sparse riparian vegetative community. This project proposes to reconstruct the disturbed channel in a manner that is consistent with the dimension, pattern and profile of an identified reference reach.

III. Scope of the Project:

The proposal calls for reconstructing approximately 2,112 feet of stream channel on Big Timber Creek that had been altered by a former landowner. Construction will involve grading the floodplain with a dozer, followed by construction of a Rosgen C3 channel type using a tracked excavator. The dimension, pattern and profile of the restored channel will mimic a reference reach channel (Attachments 2 through 4). Grade control, in the form of large rock, will be installed in a couple of locations within the project area. Additionally, root wads and constructed log jams will be installed at several outside bends to provide scour points and pool maintenance. Topsoil will be placed along over bank areas and will be stabilized with bio-degradable coir fabric. The riparian corridor and other areas disturbed by construction will be

re-vegetated with a mixture of seed, wetland plugs and containerized, bare-root and cuttings of shrubs and trees. Oversight of project construction will be provided by personnel from Aquatic Design and Construction, Inc. This project is expected to cost $118,373.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $22,500.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Restoration of this altered reach of stream is expected to create a healthier habitat for aquatic life by creating pools and riffles, reconnecting the active channel with the floodplain and providing overhead riparian cover. Expected improvements in the aquatic habitat should enhance resident trout populations in the stream. Habitat for riparian dependent wildlife would also be improved by enhancing the stream-side vegetative community.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions to meet short-term water quality standards and protect aquatic biota. A 310 permit (Natural Streambed and Land Preservation Act) will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit). In the long term, restoring the dimension, pattern and profile on this reach of stream would reduce the contribution of fine sediment to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed by project construction, but would recover quickly following proposed re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed re-vegetation efforts are extensive and would act to mitigate these disturbances. Additionally, the riparian vegetative community would be enhanced by re-connecting the active channel to the floodplain.

5. Aesthetics.

Aesthetics would be negatively impacted during project construction due to ground disturbance and the presence of heavy equipment. In the long term, aesthetics would be enhanced by restoring a channelized reach of stream to a healthier and more natural stream environment. Aesthetics would be further enhanced by restoring the vegetative community within the riparian corridor.

9. Historic and archaeological sites

The proposed project will likely require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office will be contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

It is anticipated that restoration of a 2,112 foot channelized reach of Big Timber Creek would improve overall aquatic habitat and, as a result, would enhance trout populations residing in the stream. Consequently, the recreational fishery in this reach of Big Timber Creek is expected to improve. Fishing access is provided to the public by permission from the landowner.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this segment of Big Timber Creek will remain channelized and will continue to provide poor aquatic and riparian habitat diversity. As a result, recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. The Proposed Alternative

The proposed alternative is designed to restore the morphology of the altered channel by constructing a Rosgen C-3 channel type based on an adjacent reference reach. Additionally, this alternative calls for restoring the riparian corridor by reconnecting the active channel with the floodplain and by planting a variety of streamside vegetation. These activities would provide for greater channel stability and would reduce sediment loading. This alternative would significantly improve the diversity of aquatic habitat in the stream and would enhance the riparian vegetative community. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area would be expected to be improved trout populations within this reach of Big Timber Creek.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

   We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

   The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on Montana Fish, Wildlife and Park's web page: fwp.state.mt.us.

3. Duration of comment period?

   Public comment will be accepted through 5 P.M. on March 26, 2002.

4. Person responsible for preparing the EA.

   Mark Lere, Program Officer
   Habitat Protection Bureau
   Fisheries Division
   Montana Department of Fish, Wildlife and Parks
   P.O. Box 200701
   Helena, MT 59620

   Telephone: (406) 444-2432
   e-mail: mlere@state.mt.us

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title: Big Timber Creek Channel Restoration Project

Division/Bureau: Fisheries Division -Future Fisheries Improvement
Description of Project The project is being proposed to restore the dimension, pattern and profile of 2,112 feet of Big Timber Creek. This reach of stream was straightened and diked in the mid to late 1990's by a former landowner in an apparent attempt to lessen impacts to flooding. This reach of stream supports resident populations of brook trout, brown trout, Yellowstone cutthroat trout and mountain whitefish. The project site is located on property owned by John Heminway approximately 10 miles north of the town of Big Timber in Sweet Grass County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Sweet Grass County Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office
Individuals or groups contributing to this EA Aquatic Design and Construction, Inc.

Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere

Date: February 25, 2002